HONG KONG GREEN PRINTED CIRCUIT BOARD COMPANY

Environmental Instruction

Water Pollution Control

(EI-05)

Revision No. : 1

Date : 01 – 01 – 2006

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(EMR)

Approved by : Wong Ming

(General Manager)

Revision History

Revision Date	Description	Sections Affected	Revised By	Approved By
01-01-2006	First issue	- -	- -	Wong Ming

1.0 Purpose

This instruction outlines the practices to be adopted for water pollution control and to comply with legal and other requirements.

2.0 Scope

This environmental instruction is applicable to the activities and operations which gives rise to water pollution and includes best practice procedures for the following:

- Prevention of contamination of drains/gullies; and
- Wastewater treatment plant;

In HKGPCB, much of the sources of wastewater arise from the following activities and production processes:

- Spent hot water discharge from boiler
- Treated wastewater from wastewater treatment plant
- Inner dry film and etching process
- Black oxide treatment
- Desmear process
- Outerlayer etching and tin stripping
- ENTEK process

3.0 Procedure

3.1 Application for permits/licences

The EMR shall ensure that:

- A wastewater discharge licence is obtained from Environmental Protection Department - HKGPCB is registered under the Environmental Protection Department, Water Pollution Control Ordinance – Tolo Water Control zone
- The treatment facilities specified in the licence are provided and operated in satisfactory conditions; and
- The discharge limits and monitoring requirement specified in the discharge licence complied with.

3.2 Sources of wastewater

Major sources of wastewater generated from the rinsing processes associated with etching, film developing, black oxide, plating, rinsing processes, ENTEK process and spent solution discharged from D.I. water generation system and air scrubber system are routed to collecting sumps.

3.3 Best Practices for Water Pollution Control

3.3.1 Contaminated Drains / Gullies

- locate drip trays underneath plant/equipment for operation, fuelling and maintenance;
- provide secondary containment and roofing for fuel/liquid chemical storage areas;
- use oil interceptors to remove any oil/grease deposits, and dispose of the sludge as chemical waste in accordance to EI-03 for Waste Management;
- adopt waste oil disposal/minor spillage procedures in accordance with EI-03 for Waste Management;
- for emergency spillage and leakage follow measures described in EP-05.

3.3.2 Wastewater Treatment Plant (WWTP)

- Wastewater arising from operation should be segregated and directed to wastewater treatment plant.
- Wastewater treatment plant is operated by the contractor and operations should refer to the WWTP operation manual.
- Engineer has to ensure contractor to perform cleaning and maintenance regularly and maintain records.
- For emergency situation, resulting in shutdown of plant, actions taken in accordance with the operation manual of Wastewater Treatment Plant and contact the contractor for further actions.

4.0 Monitoring and Checking

The EMR shall ensure that:

- facilities specified in this EI are provided adequately;
- practices specified in this EI are followed by staff and relevant contractors; and
- the discharge limits and monitoring requirement specified in the discharge licence are complied with.

The Production Manager or his / her delegate shall:

- ensure that sufficient measures are carried out to control water pollution from company operations and activities.
- employ HOKLAS laboratory on a monthly basis to sample effluent from each of the external discharge points of the site and perform analysis for parameters specified on the discharge licence. This is to confirm compliance and assessment of the effectiveness of the mitigation measures.
- carry out weekly site inspection of the effectiveness of the water pollution control measures, and note down the observation in the relevant inspection checklists.
- where nonconformity are identified corrective action measures are defined and implemented in accordance with EP-07 Enquiry / Complaint / Nonconformity Handling.

5.0 Records

Record Description	Record Location/	Minimum Retention

	Retention Responsibility	Time
Effluent Monitoring records (Refer to individual effluent point monitoring record from testing laboratory)	EMR	3 years
Visual Inspection Records (Refer to EF-EP07-01 if found any nonconformity)	Production Manager	3 years

6.0 Appendix

Nil.